IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPLICANT(s):	Janne Parantainen	CONF. NO.	9365
SERIAL NO.:	09/595,275	ART UNIT:	2611
FILING DATE:	June 15, 2000	EXAMINER:	Kevin Kim
TITLE:	METHOD AND ARRANGEMENT FOR CHOOSING A CHANNEL CODING AND INTERLEAVING SCHEME FOR CERTAIN TYPES OF PACKET DATA CONNECTIONS		
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APPELLANTS BRIEF

(37 C.F.R. §1.192)

This appeal brief is being filed in conjunction with a request to initiate a new appeal and is responsive to the final rejection of the claims in the subject application contained in the office action mailed December 20, 2007. A Notice of Appeal to reinstate the prior appeal was filed on March 18, 2008.

The only fee due is the difference between the increased fee and the amount previously paid. Only $10 is due.

[1] REAL PARTY IN INTEREST

The real party in interest in this Appeal is the assignee, Nokia Corporation, Espoo, Finland.

[2] RELATED APPEAL AND INTERFERENCES

There are no related appeals or interferences.

[3] STATUS OF THE CLAIMS

Claims 1, and 4-6 stand rejected under 35USC103(a) on the basis of the combined teaching of "admitted prior art" and the cited reference Kronestedt. In addition in is not clear that the rejection of claims 1 and 4-6 under 35USC102(e) based on the cited reference Park et al, U.S. Patent No. 6,920,602 is properly withdrawn. Claims 2 and 3 are objected to as being dependent on a rejected base claims but would be allowable if rewritten in independent form. The rejection is contained in the office action mailed December 20, 2007. Claims 1, and 4-6 are presented for consideration in this Appeal and are contained in the attached Claim Appendix.

[4] STATUS OF AMENDMENTS FILED SUBSEQUENT TO FINAL REJECTION

There were no amendments filed after Final Rejection.

[5] SUMMARY OF THE CLAIMED SUBJECT MATTER

As described in independent claim 1, the claimed subject matter relates to a method of for choosing a channel coding and/or interleaving scheme during the negotiation of a connection between a mobile station and a base station. As shown in figures 2 and 3 and discussed in the specification at page 8, line 4, through page 9, line 23, a communication connection is requested over a radio interface between a mobile terminal and a base station at step 203. The request message includes a set of desired Quality of Service parameters selected, at steps 201 and 202, based on an expected use of the communication connection. The system allocates a channel coding and/or interleaving scheme for use in the requested communication connection based, at least in part, on said desired Quality of Service parameters at step 207, as the connection is established. As part of the allocation, the desired set of Quality of Service parameters are mapped to the allocated channel coding and/or interleaving scheme (see page 6, lines 31-38). The allocated channel coding and/or interleaving scheme is

communicated to the base station and the mobile terminal for them to independently apply said first channel coding and/or interleaving scheme for use in the specific communication connection at steps 208 and 209.

As described in independent claim 6, in the apparatus of this application, the channel coding and/or interleaving schemes are chosen independently, for each new connection between mobile station 101 and base station 102, <u>as the connection is set up</u>. As shown in figures 1 and 4 and described on page 6, line 26 through page 7, line 17, the request for setting up of a connection is generated by the mobile terminal 101 and includes certain QoS parameters, selected by the mobile terminal, that the new connection should fulfil. The decision-making device 103 will take the requested QoS parameters and use them as a basis for selecting the appropriate, connection-specific channel coding and/or interleaving schemes. The channel coding and/or interleaving scheme is chosen independently for each new connection, <u>as it is set up</u>. The selection of QoS parameters by the terminal 101 is based on the expected use of the connection and the decision-making device 103 will apply the requested QoS parameters as a basis for selecting the appropriate, channel coding and/or interleaving schemes for the specific connection. The channel coding and/or interleaving schemes are not applied to the network generically, but only to the individual connection being set up.

[6] GROUNDS FOR REJECTION TO BE REVIEWED ON APPEAL

A. Applicant requests review of the propriety of the Examiner's qualified withdrawal of the rejection of claims 1, and 4-6, under 35USC102(e) on the basis of the cited reference Park et al, U.S. Patent No. 6,920,602 while stating **"Although it is believed that the US patent to Park(6,920,602) teaches the subject matter claimed in claims 1,4-6..."**. The qualified withdrawal of the reference Park is contained in the Office Action mailed December 20, 2007.

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B. Applicant requests that the grounds for Examiner's statement: **"The pending claims have been carefully reviewed and it was found that the scope of the invention defined by the clams is substantially the same as that defined by the claims filed April 28, 2004, the rejection of which was affirmed by the Board of Appeals and Interference on March 18, 2006"**.

C. Applicant requests that the grounds for rejection of claims 1, 4-6 under 35USC103(a) based on the combined teaching of the "admitted prior art" and the reference Kronestedt, U.S. Patent No. 6,308,082 be reviewed.

D. Applicant requests that the grounds for objection to claims 2 and 3 as being dependent on a rejected claim be reviewed.

[7] Argument

A. Applicant submits that the withdrawal of the rejection based on the reference Park with the qualifying statement is improper. Applicant is presented with a rejection that may be considered as withdrawn from contest, but the withdrawal is cast in doubt by the gratuitous statement by the Examiner. Such dictum places a cloud over the application and leaves Applicant with no choice, but to reiterate the arguments previously presented. Applicant requests, based on the following arguments, that the rejection based on the reference Park be withdrawn unequivocally.

The cited reference Park fails to disclose each and every limitation of the claims of this application. It is well settled that a claim is anticipated, "only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." (See CHISOLM, Federal Circuit Guide, Pg. 1221). In particular claim 1 as amended states:

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"**said request message further   indicating a certain set of desired Quality of Service parameters selected based on an expected use of said specific communication connection, to be associated with said requested specific communication connection,**

allocating a channel coding and/or interleaving scheme for independent   application to said specific communication connection based, at least in part, on said desired Quality of Service parameters;

communicating said allocated channel coding and/or interleaving scheme   to the base station and the mobile terminal for them to independently   apply said first channel coding and/or interleaving scheme for use in said   specific communication connection."

The reference Park, et al fails to disclose these features.

The cited reference Park does not disclose the procedure of requesting certain QoS parameters and making an allocation decision about channel coding and interleaving on the basis of such information. Park assumes that both the transmitter and the receiver have previously stored look-up tables at their disposal, which look-up tables associate each set of possible QoS parameters with a frame length. The transmitter selects the frame length, according to the QoS parameters, and transmits what Park calls the "message information" to the receiver. This "message information" is actually a list of QoS parameters, and transmits what Park calls the "message information" to the receiver. This "message information" is actually a list of QoS parameters, on the basis of which the receiver knows to take the appropriate frame length into account in reception.

The applicant's system leaves the network with the freedom to consider factors, other than the mobile device's request, and take them into account in making such decisions. Park's mapping is fixed, so that if the transmitting device decides to use a certain QoS

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and consequently a certain frame length, the receiving device has no choice, other than to comply.

The reference Parks fails to disclose sending the QoS parameters in the request for connection. Although Parks calls for "message information" to be exchanged during a call setup phase, this is not the same as saying that it would be sent just in the initial request. The reference Parks fails to indicate that the QoS parameters, communicated during set up or any other time, would be used to determine anything related to channel coding or interleaving. Consulting a fixed entry in a look-up table is not the same. In the system of Park, the originator of a connection simply starts using the frame length that the QoS parameters dictate. Although the network can accept or reject a requested connection, it cannot determine the channel coding or interleaving scheme to be used based on the requested QoS, because it has already been selected by the originating device.

In summary Parks discloses:

that QoS parameters are sent from the initiating device as part of a connection process;   it fails to disclose a "request message indicating a need for setting up a new radio bearer between the mobile terminal and the base station or changing the characteristics of an existing radio bearer between the mobile terminal and the base station";

that frame length is "appropriately varied according to the QoS of data to transmit"; it fails to disclose "allocating a channel coding and/or interleaving scheme for independent application to said specific communication connection based, at least in part, on said desired Quality of Service parameters";

that a particular frame length is selected on the basis of QoS; it fails to disclose "mapping said desired set of Quality of Service parameters to said allocated channel

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coding and/or interleaving scheme as a part of the allocation of the channel coding and/or interleaving scheme; and

that QoS parameters are communicated from the initiating device to the responding device; it fails to disclose "communicating said allocated channel coding and/or interleaving scheme to the base station and the mobile terminal".

These distinguishing features are further illustrated for the convenience of the Board in the attached Evidence Appendix Figures 1 and 2.

B. In one sweeping statement the Examiner has decided to ignore all amendments to the claims and prosecution in this application, since March 17, 2006. The Examiner ignores the fact that the claims under consideration herein are considerably different than those considered in the Appeal filed April 28, 2004. These differences were presented in the Amendment filed with a Request for Continued Examination filed May 17, 2006, further amendments were presented in a response filed November 7, 2006. A table of the sequence of amendments presented in this application is contained in Evidence Appendix Figure 3. The sequence of amendments demonstrates Applicant's diligent efforts to define the distinguishing features of the claimed subject matter. The Examiner now indicates that such efforts have returned the claimed subject matter to that claimed in November of 2003. The table of Evidence Appendix Figure 3 clearly demonstrates that the record does not support the Examiner's conclusion. Claim 1 with the amendments shown is as follows:

1. A method for choosing a connection-specific channel coding and/or interleaving scheme *comprising:*

   - requesting a specific communication connection over a radio interface between a mobile terminal and a base station of a cellular packet radio system;

   - generating a request message at the mobile terminal and *as part of said requesting a specific communication connection,* communicating *a* request message, said request message indicating a need for setting up a new radio bearer

between the mobile terminal and the base station or changing the characteristics of an existing radio bearer between the mobile terminal and the base station, said request message further indicating a certain set of *desired* Quality of Service parameters based on an expected use of said specific communication connection, for independent application to *to be associated with* said *requested* specific communication connection,

- *allocating a channel coding and/or interleaving scheme for independent application to said specific communication connection based, at least in part, on said desired Quality of Service parameters;*

- mapping said *desired* set of Quality of Service parameters to *said allocated* channel coding and/or interleaving scheme as a part of the connection-specific *allocation of the* channel coding and/or interleaving scheme; and

- communicating said *allocated* channel coding and/or interleaving scheme to the base station and the terminal for them to independently apply said specific channel coding and/or interleaving scheme *for use* in said first communication connection.

There are three parts to the allocation process of the claimed system, according to the independent claims 1 and 6, as amended. First, a request message that includes desired QoS parameters selected based on the intended use of the communication channel is generated; second, a channel coding and/or interleaving scheme is assigned based on the desired QoS parameters; and third, the desired QoS parameters are mapped to the assigned channel coding and/or interleaving scheme to create a correspondence between the particular channel coding and/or interleaving scheme. (please refer to the subject application, page 6, lines 31-39). The examiner's statement that **"the allocating step and the mapping step are nothing but choosing a channel coding and interleaving scheme based on the desired Quality of Service parameters."** is mistaken and fails to take into account the clear meaning of the limitations in the independent claims.

A channel coding scheme, according to applicable standards, involves a combination of error detection, error correcting, rate matching, interleaving, and transport channels

mapping onto/splitting from physical channels. In the allocating step of this application, these factors must be considered and applied to obtain the set of Quality of Service parameters that are desired based on the anticipated use of a particular connection. Once this is accomplished the QoS parameters are mapped to the allocated channel coding scheme for future reference. This is not merely choosing QoS parameters.

According to Kronestad, a channel coding scheme is selected from a plurality of possible choices based on measured quality values (column 4, lines 29-36) and applied on a cell wide basis. The selection is not based on desired quality values based on an anticipated use of a connection. In Park the selection is based on providing a frame length. Clearly the selection process is not as simple as the Examiner indicates. This has all been discussed in the prosecution history.

The Examiner argued this issue in the Office Action mailed July 7, 2006 and Applicant duly responded in the amendment filed November 7, 2006. At this point the Examiner dropped such issues and issued a new rejection based on anticipation, citing the new reference Parks, et al in the Office Action mailed January 17, 2007. Applicant argued against the rejection based on Parks in a response mailed February 27, 2007. When such arguments were rejected, Applicant filed a second Notice of Appeal requesting that the Examiner's rejection be overturned. In response to Applicant's Appeal Brief, the Examiner reopened prosecution, withdrew the citation of the reference Parks and reinstated a rejection first made in an office action mailed January 28, 2004. Applicant submits that the Examiner has misused the authority of the Patent Office and failed to provide a clear prosecution history record in accordance with MPEP Sections 707.07(e and f). The Examiner's actions have placed Applicant at a disadvantage, the result of which has forced the Applicant to reassert prior arguments at considerable expense. Applicant respectfully requests that the Board recognize the significance of the amendments to the claims as currently presented and reverse the Examiner's assertion

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that there has been no meaningful amendments.

C. The Examiner has essentially reinstated a rejection, almost word for word, that was presented to the Applicant over four years ago. This rejection has been argued, subjected to appeal, and was the cause of considerable amendments, as indicated in Evidence Appendix Figure 1. Based on the claims as currently presented, Applicant submits that, the combined teaching of the "admitted prior art" and Kronestedt does not render claims 1, 4-6 obvious because it fails to teach or otherwise suggest each and every limitation of the claims. It is well settled that in order to establish a prima facie case for obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, without reference to the disclosure of this application. (MPEP Section 2142) *In re Vaeck*, **947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 - § 2143.03 for decisions pertinent to each of these criteria."**

In particular claim 1 contains the following:

"said request message further indicating a certain set of desired Quality of Service parameters selected based on an expected use of said specific communication connection, to be associated with said requested specific communication connection,..." (emphasis added)

The combined teaching fails to disclose or suggest this feature. The Examiner has characterized the "admitted prior art" (page 5, lines 32-34 of the subject application) in part, as teaching the following:

"generating and communicating a request message at the mobile terminal..... and indicating a certain set of Quality of Service parameters selected by the mobile terminal based on expected use of the specific communication connection for independent application to the specific connection." (emphasis added)

The "admitted prior art" to which the Examiner refers states as follows:

"It is likewise known from prior art that such a request may comprise, within appropriate fields, a selection of QoS parameter values which the MS would like the new or redefined bearer to have."

The "admitted prior art" clearly does not indicate that QoS parameter values are selected based on the intended use. The application goes on, after the above statement, to indicate that, according to the invention, the QoS parameters are selected based on the intended use. The content of "Admitted Prior Art" does not support the Examiner's characterization.

The teaching of Kronestedt also fails to disclose or suggest the above feature. Kronestedt applies link measured quality values. These are measured from existing cell conditions and applied to a mode selector that selects a modulation and channel coding mode. (see column 3, lines 53-65, column 4, lines 29-34, and column 5, lines 1-15). The measured parameters include received signal power, received interference, bit error rate and other conventional measurements. This is what is referenced to, as known, in the subject application, see page 4, lines 1-12 relating to the negotiation of QoS parameters. The QoS parameters used in the subject application are those related to intended use, i.e. such values as service precedence, mean delay and maximum delay as described in claims 2 and 3, not values measured from existing conditions.

Therefore, the combined teaching fails to disclose the above feature of claim 1, and equivalent language appears in independent claim 6. Since by dependency claims 4 and 5 contain the limitations of claim 1, the rejection of these claims are traversed on the same grounds.

The Examiner acknowledges that the admitted prior art does not teach, the following elements of claim 1:

"allocating a channel coding and/or interleaving scheme for independent application to said specific communication connection based, at least in part, on said desired Quality of Service parameters;

mapping said desired set of Quality of Service parameters to said allocated channel coding and/or interleaving scheme as a part of the allocation of the channel coding and/or interleaving scheme;"

The Examiner proceeds to apply the teaching of Kronestedt to fill the acknowledged deficiencies of the "admitted prior art". Kronestedt teaches a method of selecting a modulation and channel coding mode based on cell quality measurement information. It fails to disclose a selection process **based on expected use of the specific communication connection for independent application to the specific connection."**

Kronestedt clearly uses the selected mode on a cell wide basis and, as indicated above, the selection is based on measured cell quality. It is not selected for a specific connection. Kronestedt states at column 2, lines 58-62 as follows:

"This is achieved according to the present invention by providing a relatively slowly adaptive technique which selects a modulation and channel coding scheme from a plurality of possible choices, and applies the selected modulation and channel coding scheme on a cell-level basis."

The Applicant submits therefore that Kronestedt fails to teach a system that operates on a connection by connection basis. This is further supported in Kronestedt where it is stated at column 5, lines 16-23, as follows:

"The fixed-site transceivers and mobile stations of the cell respond to this

mode information by implementing a modulation and channel coding scheme corresponding to the selected mode. This modulation and channel coding scheme will be implemented by all mobile stations and fixed-site transceivers of the cell, so that all radio links of the cell will operate in the same modulation and channel coding mode."

The reference Kronestedt fails to teach the use of quality of service parameters that are desireable based on the intended use, i.e, voice, video, or data. Kronestedt uses quality measurements of a given cell received during normal operation (see column 3, lines 53-56). Kronestedt, therefore, does not teach adapting a new connection to the desired quality parameters needed by the use to which the new connection will be put.

It is now clear from the claims, as amended over the course of the examination of this application, that the allocation of a channel coding and/or interleaving scheme for independent application to said specific communication connection is based, at least in part, on desired quality of service parameters and that mapping of the desired Qos parameters to the allocated channel coding and/or interleaving scheme is part of the allocation process. The Examiner's conclusion that the claims are now the same as those considered by the Appeal Board in its decision of March 17, 2006 is just not supported by the record. Applicant has amended the claims to specifically include language that was indicated by the board as not part of the claimed subject matter presented on the Appeal, see Evidence Appendix Figure 1. Under any reasonable rule of procedure, the Examiner is estopped, after almost two years of further examination, from asserting that the amended claim subject matter does not exist.

In the cited reference Kronestedt, if there is made a positive connection-specific allocation decision (i.e. the network agrees to set up the requested connection), the next thing the reference teaches is to pick the very same channel coding method for use in the new connection that the mode selector has selected also for everyone else. The principle of Kronestedt, is based on always having the very same channel coding

scheme for everyone in the cell. This simply makes it impossible to select one channel coding scheme for one connection and another, different channel coding scheme for another simultaneous connection. In the subject invention, what happens is as follows: if there are two simultaneous connection requests that include different QoS parameters: the decision-making device makes a separate decision for both requests, and as a part of each decision, maps just those QoS parameters included in a particular request to a particular channel coding and/or interleaving scheme.

As the Examiner indicates, the problem to which the teaching of Kronestedt is directed is to maximize the throughput of a communication link by using a link adaptation program. Applicant presents a solution that is directed to balancing a relatively large number of retransmissions or a choice of strong channel coding. The former is contradictory to the requirement of real time and the latter lowers the throughput of actual data to an unacceptable level for the transmission of speech or images with a reasonable quality. Relatively short interleaving length makes the situation even worse, because it weakens the performance of the radio interface against bursty transmission errors. These problems are balanced by the method and system as claimed in this application. This problem cannot be solved by using the system of Kronestedt.

Applicant submits that the above described deficiencies of the primary reference "admitted prior art" are not remedied by the proposed combination with the teaching of the reference Kronestedt. The combined references do not therefore support a prima-facie case of obviousness. The modification of the teachings of Kronestedt and the "admitted prior art", in order to obtain the invention, as described in the claims submitted herein, would not have been obvious to one skilled in the art.
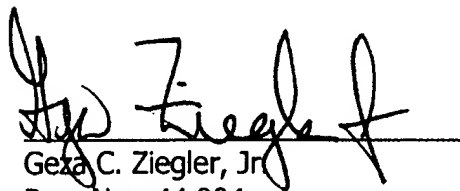
The above arguments apply equally to the rejected dependent claims 4 and 5, which by their dependency contain all of the limitations of claim 1

D.   The Examiner has failed to acknowledge that claim 2 has been rewritten in independent form and claim 3 is dependent on claim 2 since at least as early as the amendment filed by Applicant on May 19, 2006. The Examiner has been reminded of this fact several times during the prosecution of this application and has nevertheless ignored the amendment, thereby further confusing the prosecution history.   Acknowledgement of the allowance of claims 2 and 3 is again requested.

It is respectfully submitted that all of the claims, as presented, are clearly novel and patentable over the prior art of record. Accordingly, the Board of Appeals is respectfully requested to favorably consider the rejected claims, to grant the relief requested by Applicant, and to reverse the Examiner's rejection of the claimed subject matter, thereby enabling this application to issue as a U.S. Letters Patent.

The Commissioner is hereby authorized to charge payment of $10 for the Appeal Brief as well as for any other fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,

19 May 2008
Date

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CLAIM APPENDIX

1. (previously presented) A method for choosing a connection-specific channel coding and/or interleaving scheme comprising:

requesting a specific communication connection over a radio interface between a mobile terminal and a base station of a cellular packet radio system;

as part of said requesting a specific communication connection, communicating a request message, said request message indicating a need for setting up a new radio bearer between the mobile terminal and the base station or changing the characteristics of an existing radio bearer between the mobile terminal and the base station, said request message further indicating a certain set of desired Quality of Service parameters selected based on an expected use of said specific communication connection, to be associated with said requested specific communication connection,

allocating a channel coding and/or interleaving scheme for independent application to said specific communication connection based, at least in part, on said desired Quality of Service parameters;

mapping said desired set of Quality of Service parameters to said allocated channel coding and/or interleaving scheme as a part of the allocation of the channel coding and/or interleaving scheme; and

communicating said allocated channel coding and/or interleaving scheme to the base station and the mobile terminal for them to independently apply said first channel coding and/or interleaving scheme for use in said specific communication connection.

2. (allowed) A method for choosing a connection-specific channel coding and/or interleaving scheme to be applied in a communication connection over a radio interface between a terminal and a base station of a cellular packet radio system where a certain

decision-making device allocates channel coding and/or interleaving schemes to communication connections, comprising the steps of:

- communicating a request message to the decision-making device, said request message indicating a need for setting up a new radio bearer between the terminal and the base station or changing the characteristics of an existing radio bearer between the terminal and the base station and indicating a certain set of Quality of Service parameters associated with a certain first communication connection,

- mapping said set of Quality of Service parameters to a certain first channel coding and/or interleaving scheme as a part of the connection-specific channel coding and/or interleaving scheme allocation made by the decision-making device and

- communicating said first channel coding and/or interleaving scheme to the base station and the terminal for them to apply said first channel coding and/or interleaving scheme in said first communication connection;

wherein the step of communicating a request message to the decision-making device further comprises the mutually alternative substeps of:

a1) indicating, within said set of Quality of Service parameters, high service precedence, short mean delay and short maximum delay when the request message concerns a certain communication connection for transmitting real-time speech and/or real-time video image, or

a2) indicating, within said set of Quality of Service parameters, low service precedence, long mean delay and long maximum delay when the request message concerns a certain communication connection for transmitting non-real time data;

and

- the step of mapping said set of Quality of Service parameters to a certain first channel coding and/or interleaving scheme comprises the mutually alternative substeps of

b1) mapping the set of Quality of Service parameters indicating high service precedence, short mean delay and short maximum delay into a channel coding scheme with no retransmissions and a long interleaving length, or

b2) mapping the set of Quality of Service parameters indicating low service precedence, long mean delay and long maximum delay into a channel coding scheme with retransmissions and a short interleaving length.

3. (allowed) A method according to claim 2, wherein step b1) further comprises the feature of mapping said set of Quality of Service parameters indicating high service precedence, short mean delay and short maximum delay into a channel coding scheme which is optimized for speech.

4. (previously presented) A method according to claim 1, wherein the step of communicating a request message is executed as a response to an observed need for setting up a new radio bearer between the mobile terminal and the base station.

5. (previously presented) A method according to claim 1, wherein the step of communicating a request message is executed as a response to an observed need for changing the characteristics of an existing radio bearer between the mobile terminal and the base station.

6. (previously presented) Apparatus for choosing a channel coding and/or interleaving scheme comprising:

- a mobile terminal, a base station and a radio interface between them,

- a certain decision-making device for allocating channel coding and/or interleaving schemes to communication connections,

- wherein the mobile terminal is adapted to request a specific communication connection with said base station over said radio interface, said request for a specific communication connection further including a request message to the decision-making device, said request message indicating a need for setting up a new radio bearer between the mobile terminal and the base station or changing the characteristics of an existing radio bearer between the mobile terminal and the base station, said request message further indicating a certain set of desired Quality of Service parameters based on an expected use of said specific communication connection, to be associated with said requested specific communication connection;

wherein the decision making device is adapted to allocate a channel coding and/or interleaving scheme for independent application to said requested specific communication connection based, at least in part, on said desired Quality of Service parameters, and is further adapted to map said desired Quality of Service parameters to said allocated channel coding and/or interleaving scheme as a part of the allocation of the channel coding and/or interleaving scheme; and

wherein said decision making device is adapted to communicate said allocated coding and/or interleaving scheme to the base station and the mobile terminal for them to independently apply said allocated channel coding and/or interleaving scheme for use in said specific communication connection.
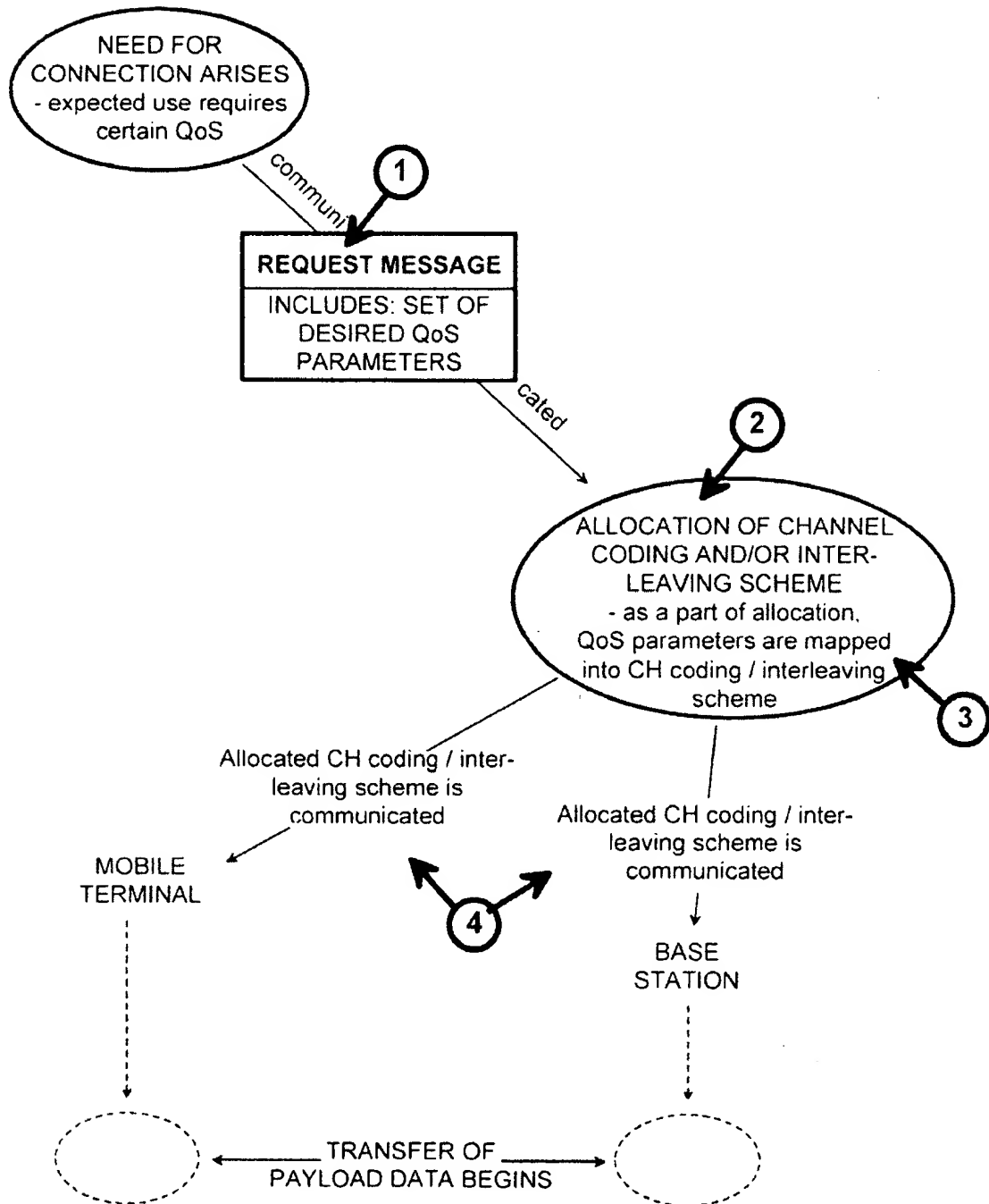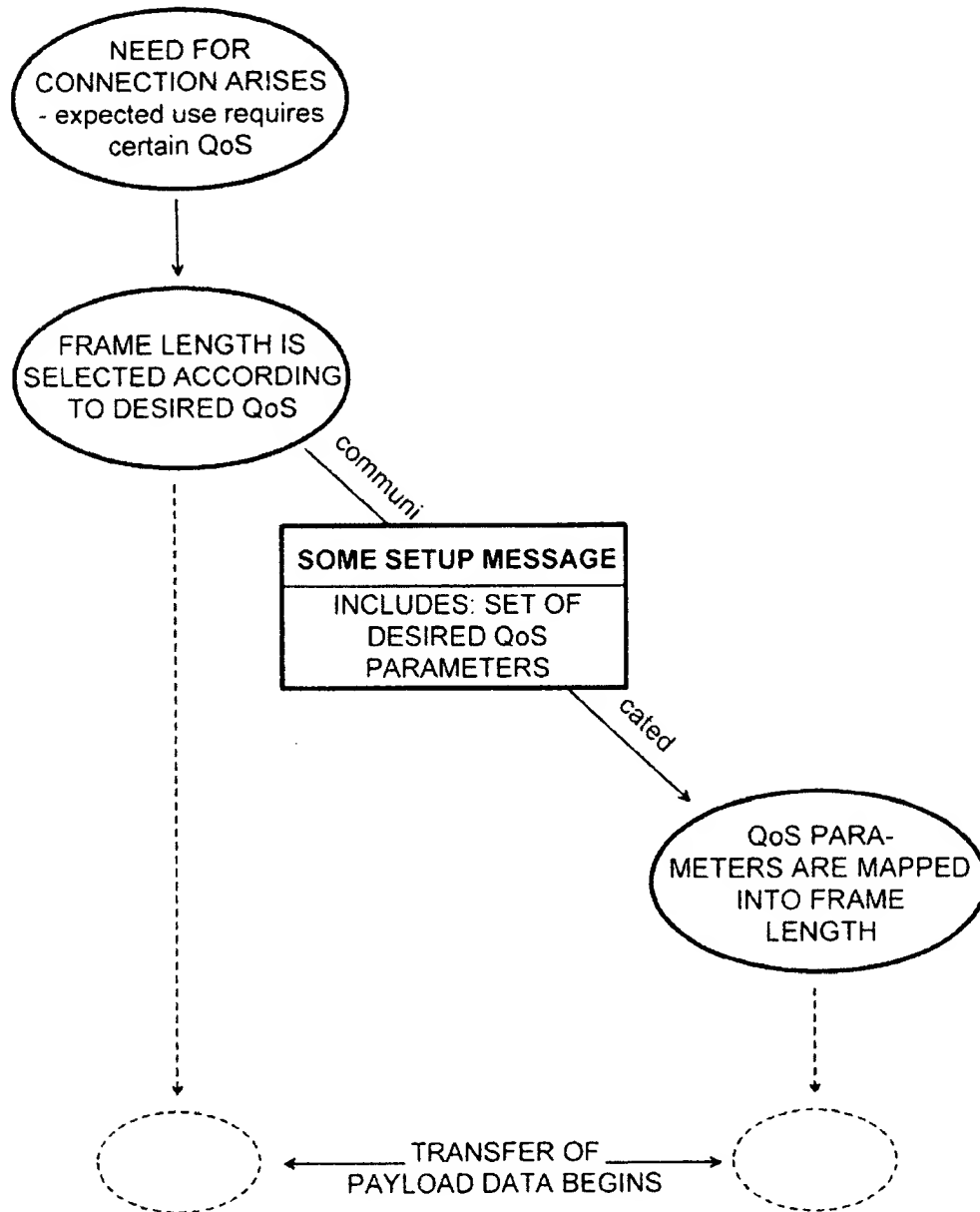
EVIDENCE APPENDIX

See attached Figures 1 through 3.

RELATED PROCEEDINGS APPENDIX

(NONE)

Evidence Appendix – Figure 1

NEED FOR CONNECTION ARISES
- expected use requires certain QoS

communi...

(1)

REQUEST MESSAGE

INCLUDES: SET OF DESIRED QoS PARAMETERS

...cated

(2)

ALLOCATION OF CHANNEL CODING AND/OR INTER-LEAVING SCHEME
- as a part of allocation, QoS parameters are mapped into CH coding / interleaving scheme

(3)

Allocated CH coding / inter-leaving scheme is communicated

Allocated CH coding / inter-leaving scheme is communicated

MOBILE TERMINAL

(4)

BASE STATION

TRANSFER OF PAYLOAD DATA BEGINS

NEED FOR CONNECTION ARISES - expected use requires certain QoS

FRAME LENGTH IS SELECTED ACCORDING TO DESIRED QoS

communi

SOME SETUP MESSAGE

INCLUDES: SET OF DESIRED QoS PARAMETERS

cated

QoS PARA- METERS ARE MAPPED INTO FRAME LENGTH

TRANSFER OF PAYLOAD DATA BEGINS

Evidence Appendix – Figure 3

Original claim 1	Amended on 13 Nov 2003	Amended on 17 May 2006	Amended on 7 Nov 2006
1. A method for choosing a channel coding and/or interleaving scheme to be applied in a communication connection over a radio interface between a terminal and a base station of a cellular packet radio system where a certain decision-making device allocates channel coding and/or interleaving schemes to communication connections, comprising the steps of: - communicating a request message to the decision-making device, said request message indicating a certain set of Quality of Service parameters associated with a certain first communication connection, - mapping said set of Quality of Service parameters to a certain first channel coding and/or interleaving scheme as a part of the channel coding and/or interleaving scheme allocation made by the decision-making device and - communicating said first channel coding and/or interleaving scheme to the base station and the terminal for them to apply said first channel coding and/or interleaving scheme in said first communication connection.	1. A method for choosing a connection-specific channel coding and/or interleaving scheme to be applied in a specific communication connection over a radio interface between a mobile terminal and a base station of a cellular packet radio system where a certain decision-making device allocates channel coding and/or interleaving schemes to communication connections, comprising the steps of: - communicating a request message to the decision-making device, said request message indicating a need for setting up a new radio bearer between the terminal and the base station or changing the characteristics of an existing radio bearer between the terminal and the base station and indicating a certain set of Quality of Service parameters associated with a certain first communication connection, - mapping said set of Quality of Service parameters to a certain first channel coding and/or interleaving scheme as a part of the connection-specific channel coding and/or interleaving scheme allocation made by the decision-making device and - communicating said first channel coding and/or interleaving scheme to the base station and the terminal for them to apply said first channel coding and/or interleaving scheme in said first communication connection.	1. A method for choosing a connection-specific channel coding and/or interleaving scheme to be applied in a specific communication connection over a radio interface between a mobile terminal and a base station of a cellular packet radio system where a certain decision-making device allocates channel coding and/or interleaving schemes to communication connections, comprising the steps of: - generating communicating a request message at the mobile terminal and communicating said request message to the decision-making device, said request message indicating a need for setting up a new radio bearer between the mobile terminal and the base station or changing the characteristics of an existing radio bearer between the mobile terminal and the base station, said request message further and indicating a certain set of Quality of Service parameters selected by said mobile terminal based on an expected use of said specific communication connection, for independent application to associated with a certain first communication connection, for independent application to said specific communication connection, - mapping said set of Quality of Service parameters to a certain first channel coding and/or interleaving scheme as a part of the connection-specific channel coding and/or interleaving scheme allocation made by the decision-making device and - communicating said first channel coding and/or interleaving scheme to the base station and the terminal for them to independently apply said specific first channel coding and/or interleaving scheme in said first communication connection.	1. A method for choosing a connection-specific channel coding and/or interleaving scheme comprising: to be applied in - requesting a specific communication connection over a radio interface between a mobile terminal and a base station of a cellular packet radio system, where a certain decision-making device allocates channel coding and/or interleaving schemes to communication connections, comprising the steps of: - generating a request message at the mobile terminal and as part of said requesting a specific communication connection, communicating said a request message, to the decision-making device, said request message indicating a need for setting up a new radio bearer between the mobile terminal and the base station or changing the characteristics of an existing radio bearer between the mobile terminal and the base station, said request message further indicating a certain set of desired Quality of Service parameters selected by said mobile terminal based on an expected use of said specific communication connection, for independent application to be associated with said requested specific communication connection, - allocating a channel coding and/or interleaving scheme for independent application to said specific communication connection based at least in part on said desired Quality of Service parameters; - mapping said desired set of Quality of Service parameters to a certain first said allocated channel coding and/or interleaving scheme as a part of the connection-specific allocation of the channel coding and/or interleaving scheme; allocation made by the decision-making device and - communicating said first allocated channel coding and/or interleaving scheme to the base station and the terminal for them to independently apply said specific channel coding and/or interleaving scheme for use in said first communication connection.